

FIG. 1A

2017T20 804822360

TITLE: AUTOANTIBODIES TO GLUCOSE-6-PHOSPHATE ISOMERASE AND THEIR  
PARTICIPATION IN AUTOIMMUNE DISEASE  
INVENTORS NAME: Henrik Ditzel et al.  
SERIAL NO.: 09/828,708  
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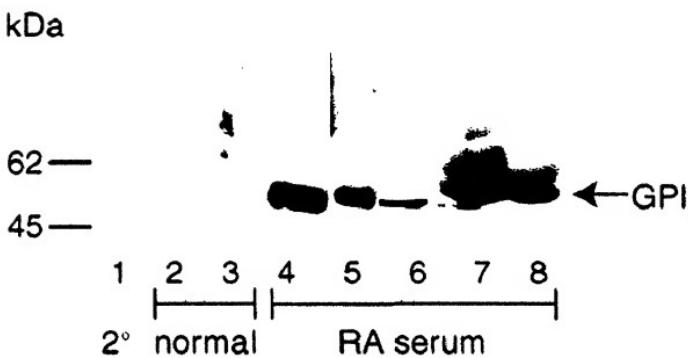


FIG. 1B

201120 807828960

TITLE: AUTOANTIBODIES TO GLUCOSE-6-PHOSPHATE ISOMERASE AND THEIR  
PARTICIPATION IN AUTOIMMUNE DISEASE  
INVENTORS NAME: Henrik Ditzel et al.  
SERIAL NO.: 09/828,708

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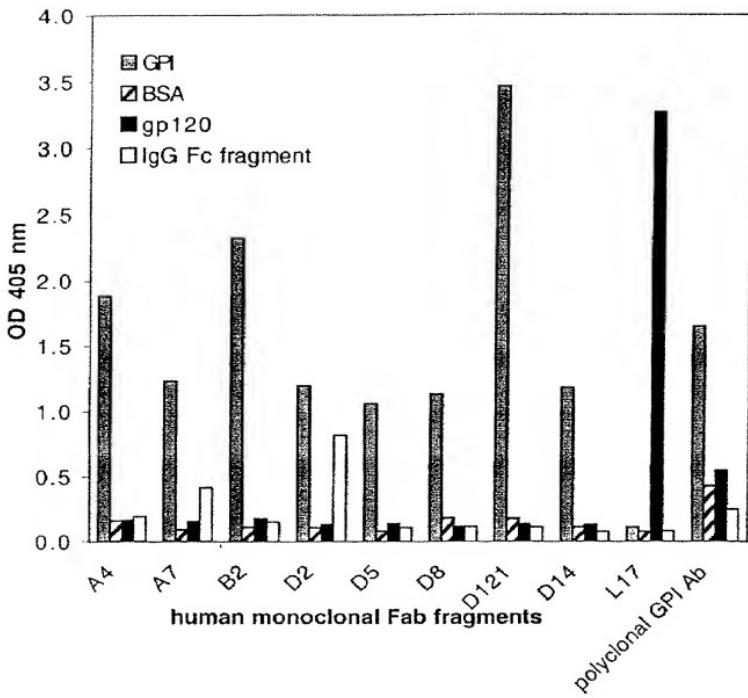


FIG. 2

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2011T20" 80432860

Light Chain Variable AA Sequences

Name	SEQ ID NO.	Name	FR1	CDR1	FR2	CDR3	FR4
A4	1	PDSLAVSLGERATINC	KSSQSVITYTSNNKNYLA	WYQOKPGQPPKLLY			
D2	2	PSFL3ASVGDRVTTC	RASQGSSSYLA	WYQLKPGKAPKLLY			
D121	3	PGTLSPGERATLSC	RASQSVSSSYLA	WYQOKPGQAPRLLY			
B2	4	PDSLAVSLGERATINC	KSSQSVITYTSNNKNYLA	WYQOKPGQPPKLLY			
D14	5	PGTLSLSPGEGATLSC	RASQSVSSSYLA	WYQQRPGQAPRLLY			
D5	6	PGTLSLSPGEGATLSC	RASQSVSSSYLA	WYQOKPGQAPRLLY			
A7	7	PGTLSLSPGERVTLSC	RASQSVSSSYLA	WYQOKPGQAPRLLY			
<u>Name</u>		CDR2	FR3				
A4		WASTRES	GVPDRFSGSGSGTDFLTISLQAEDVAVYYC	QQYYDSYT	FGQGITKLEIKRTVA		
D2		AASLQLS	GVPDRFSGSGSGTDFLTISLQAEDVAVYYC	QQLNSPYLT	FGGGAKVGHRTVA		
D121		GASSRAT	GIPDRFSGSGSGTDFLTISLQAEDVAVYYC	QQYGSSPRT	FGQQGTTKVEIKRTVA		
B2		WASTRES	GVPDRFSGSGSGTDFLTISLQAEDVAVYYC	QQYYDSYT	FGQQGTTKLEIKRTVA		
D14		GASSRAT	GIPDRFSGSGSGTDFLTISLQAEDVAVYYC	QQYDNVPDT	FGQQGTRLEIKRTVA		
D5		GASSRAT	GIPDRFSGSGSGTDFLTISLQAEDVAVYYC	QQYGTSPL	FGQQGTRLEIKRTVA		
A7		GASSRAT	GIPDRFSGSGSGTDFLTISLQAEDVAVYYC	QQYGSSPRT	FGQQGTTKVEIKRTVA		

**FIG. 3A**

2017-2018-82860

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Heavy Chain Variable AA Sequences

Name	SEQ_ID No.	FR1	CDR1	FR2	CDR2
A4	8	GGGVQPGRSKLSCAASGFTFS	SHGSH	WYRQAPKGKLEWA	LLSDGSNKFYTESVKG
D2	9	.....AW...LR...V.....	.....TM.	.....	.....
D121	10	.....R.....	YT...	.....	VI.Y.NK.Y.AD....
B2	11	GAEVRKPGETSVRISCRASGNFT	CHIIH	WYRQAPGQGLQMMG	RINPTGCGVSELAQSFQD
D14	12	GGGLVQPQGSRLSCLATSGFIFN	SYAMN	WYRQAPKGKLEWVS	RISGNNSGSTFYADSVKG
D5	13	GPGIVRPSQTLSLTCVPSPGSIK	GDSYFWS	WYRQAPKGKLEWIG	RIYGRGTPTNNRNFVFGS
A7	14	GAEVKKPQSSVKVSCRASGGTFS	RYAIS	WYRQAPGQGLEWNG	GIIPPPGPVNYYAQKFQG
Name	FR3	CDR3	FR4	VH gene	
<u>Cont'd</u>					
A4	RFTISKNSKNTLYLQMNSLRIDDTAVYYGAI	SLVGTTAFNY	WGQGTIVTVSS	VH3	
D2	.....R.....LS...PE.....TN	.E..A...D.	.....	VH3	
D121	.....VE.....	.I.....	.....	VH3	
B2	RVLTRRSNTVFEELISGLTEEDTALYFCAR	PRENMRERPLDL	WGQGTIVTVSS	VH1	
D14	RFTISRNSKNTAFLMNSQRAEDTAVYYCAK	DLSGGAYYYGMDV	WGQGTIVTVSS	VH3	
D5	RVSMSVDMRSOFFELIRDYTAADTAVYYCAR	DKGSESYFDP	WGQGTIVTVSS	VH4	
A7	RVTITADDSTNTAYMGSSLRSGDTAVYYCAR	VAYDGSGYNNNPKIYYYSYMND	WGKGTIVTVSS	VH1	

FIG. 3AH

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Name	SEQ ID NO.	FR1	CDR1	FR2	CDR2
A4	8	GGGVQPGRLKLSCAASGFTFS	SHGSH	WWRQAPGKGLEWVA	LSSSDGSNKFYIIESVKG . . TM.
D2	9	.....AW..LR...V.....	..TM.	.....	V.I.Y..NK.Y.AD....
D121	10	.....R.....	.YTP.	.....	V.I.Y.....AD....
DP-46		.....R.....	.YAM.	.....	.....
B2	11	GAEVKKPGETSVRISCRASGNTFT	GHHIH	WWRQAPGQCLQWMG	RINPTGGGVSLAQSFQD I...S..ST.Y..K..G
DP-7		.....K...A..KV..K..Y..	SYVMH	.....E..	RISNSGSTFYADSVRKG
D14	12	GGGLVQPGGSJRLSCATSGFIN	SYAMN	WWRQAPGKGLEWVS	A...SG...Y.....
VH26		.....A..T.S	....S	.....	.....
D5	13	GPGILVPRPSQTLISLTCPVSPGSIK	GDSYFWS	WWRQPVGKGLEWIG	RIYGRGTINNYMRVFGS
IGHCAK		.....K.....T.G...S	SG..Y..	..I...A.....	...TS.S....PSIK.
A7	14	GAEVKKPGETSVKUSCRASGGTFS	RYAIS	WWRQAPGQCLEWMG	GIIPPFGPVNYAQKFQG
VH1-69		.....K.....	S....	.....	....I..TA.....

FIG. 3B

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Name cont'd	FR3	CDR3	FR4	VH gene
A4	RFTISKNSKNTLYLQMNSSLRLDDTAVYCAI	SLVGGTTAFNY	WGQGTTVTVSS	VH3
D2	.....R.....LS.....PE.....TN	E...A...D.	.....	VH3
D121	.....D.....VS.....VS.....	.....I.....	.....	VH3
DP-46	.....R.....AE.....R	.....	.....	.....
B2	RVSLTRDRSSNTVFLSGLITEEDDTALYCAR	PRFMNIREPIDL	WGQGTTVTVSS	VH1
DP-7	.TM...T.TS...YM...S.RS...V.Y...	DLSGGAYYYGM	WGQGTTVTVSS	VH3
D14	RFTISRDNSKNTAFLRNNNSQRAEDTAVYCAK	DV	.....	.....
VH26	.....LY.Q....L.....	DKGSEYSYFP	WGQGTTVTVSS	VH4
D5	RVMSVDNSRSOFLLELDVTAADTAVYCAR	.....	.....	.....
IGHCAK	.TI...T.KN...S.K.SS.....	.....	.....	.....
A7	RVTTTADDSTNTAYMGLSSLRSGDTAVYCAR	VAYDGSGYNNI	WGKGTTVTVSS	VH1
	.....K..S.....E.....	PKIYYYSYMIV	.....	.....
		VH1-69		

FIG. 3B Cont'd

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Clone	Closest Germline	% amino acid homology	% nucleotide homology	R/S ratio FRs	R/S ratio CDRs
A4	DP-46	86	89	6/6:1.0	12/5:2.4
D2	DP-46	87	92	8/6:1.3	4/5:0.8
D121	DP-46	91	95	2/4:0.5	7/0:>7.0
B2	DP-7	67	79	20/17:1.2	<u>14/5:2.8</u>
D14	VH26	87	93	7/3:2.3	5/2:2.5
D5	IGHCAK	73	81	17/16:1.1	13/4:3.3
A7	VH1-69	90	94	7/2:3.5	5/0:>5.0

FIG. 3C

TITLE: AUTOANTIBODIES TO GLUCOSE-6-PHOSPHATE ISOMERASE AND THEIR  
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CDR's Heavy Chain

SEQ ID NO:	CDR1	SEQ ID NO:	CDR2	SEQ ID NO:	CDR3
15 SHGSH	22	LLSSDGSNKFKYTESVKG	29	SIVGTTAFAVN	
16 .TM.	23	.IFY.....Y.AD....	30	E..A...D.	
17 .YTF.	24	VI.Y..NK.Y.AD....	31	.I.....	
18 GHIIH	25	RINPTGGVSLAQSFDQ	32	PRENMIREPDLI	
19 SYAMN	26	RISGNSGSTFYADSVKG	33	DLSGGAYYYGMDV	
20 GDSXFMS	27	RITYGRGTTNINRNFGS	34	DRGSEFISYFDP	
21 RYAIRS	28	GLIPPFGPVNYAQKFQG	35	VAYDGSGYNNNIPKIIYYSYMDV	

CDR's Light Chain

SEQ ID NO:	CDR1	SEQ ID NO:	CDR2	SEQ ID NO:	CDR3
36 KSSQSVFTSNKNYLA	4.3	WASTRES		50 COYYDSYT	
37 RASQFISSTLA	4.4	AASLQGS		51 QQLNNSPLT	
38 RASQSVSSSYLA	4.5	GASSRAT		52 QQYGSSRT	
39 KSSQSVFTSNKNYLA	4.6	WASTRES		53 QQYYDSYT	
40 RASQSVSSSYLA	4.7	GASSRAT		54 QQYDNVPDT	
41 RASQSVSSSYLA	4.8	GASSRAT		55 QQYGTSP	
42 RASQSVSSSYLA	4.9	GASSRAT		56 QQYQGSSPRT	

**FIG. 4A**

2011-20180282860

Framework Regions, Heavy Chain

TITLE: AUTOANTIBODIES TO GLUCOSE-6-PHOSPHATE ISOMERASE AND THEIR  
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 SERIAL NO.: 09/828,708

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SEQ ID NO:	FR1	SEQ ID NO:	FR2
57	GGVVQPGRLKLSCAASGFTTS	64	WVRQAPGKGLEWVA
58	.... AW ..LR.. V.....	64	.....
59	..... R.....	64	.....
60	GAEVRKPGTTSVRISCRASGNTT	65	WVRQAPGQGLQWMG
61	GGGLVQPGSSRLSCATSGIFN	66	WVRQAPGKGLEWVS
62	GEGLVRPSPQTLSLTCPVSPGSIK	67	WVRQPVGKGLEWIG
63	GAEVKPGSSVKVSCRASGGTFS	68	WVRQAPGQGLEWMG
SEQ ID NO:	FR3	SEQ ID NO:	FR4
69	RFTISRKDNSKNTLYLQMNSLRLLDDTAVYCYAI	76	WGQGTLVTVYSS
70	.....R.....LS.....PE.....TN	76	.....
71	.....	76	.....
72	RVSLTRDRSSNTVFLSGLTTEEDDTALYFCAR	77	WGQGTVVTVYSS
73	RFTISRDNSKNTAFLRMNSQRAEDDTAVYCYAK	78	WGQGTTVTVYSS
74	RVSMVDMRSRQSFFLELRDVTAAADTAVYCYAR	79	WGQGIVVVNVES
75	RTVTITADDSTNTAYNGLSSRLSGDTAVYCYAR	80	WGKGTTTVYSS

**FIG. 4B**

TITLE: AUTOANTIBODIES TO GLUCOSE-6-PHOSPHATE ISOMERASE AND THEIR  
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 INVENTORS NAME: Henrik Ditzel et al.  
 SERIAL NO.: 09/828,708

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Framework Regions, Light Chain

SEQ ID NO:	FR1	SEQ ID NO:	FR2	SEQ ID NO:	FR4
81	PDSLAVSLGERATINC	88	WYQQKPGQPPKKLIY	WYQQKPGQPKLILY	
82	PSFLSASVGDRTVIC	89	WYQLKPGKAPKLILY	WYQQKPGQAPRLIY	
83	PGTLISLSRGERATLSC	90	WYQQKPGQPKLILY	WYQQKPGQAPRLIY	
84	PDSLAVSLGERATINC	91	WYQQKPGQPKLILY	WYQQKPGQAPRLIY	
85	PGTLISLSRGEATLSC	92	WYQQKPGQPKLILY	WYQQKPGQAPRLIY	
86	PGTLISLSRGEATLSC	93	WYQQKPGQPKLILY	WYQQKPGQAPRLIY	
87	PGTLISLSRGERVTLC	94	WYQQKPGQPKLILY	WYQQKPGQAPRLIY	
SEQ ID NO:	FR3	SEQ ID NO:	FR4	SEQ ID NO:	FR4
95	GVPDRFSGSGSGTDFLTISLQAEDVAVYC	102	FGQGTRKLEIKRTVA		
96	GVPDRFSGSGSGTDFLTISLQAEDVAVYC	103	FGGGAKVGIRRTVA		
97	GIPDRFSGSGSGTDFLTISLQAEDVAVYC	104	FGQGTRKVEIKRTVA		
98	GVPDRFSGSGSGTDFLTISLQAEDVAVYC	105	FGQGTRKLEIKRTVA		
99	GIPDRFSGSGSGTDFSFSTISLQAEDVAVYC	106	FGQGTRLEIKRTVA		
100	GIPDRFSGSGSGTDFLTISLQAEDVAVYC	107	FGQGTRLEIKRTVA		
101	GIPDRFSGSGSGTDFLTISLQAEDVAVYC	108	FGQGTRKVEIKRTVA		

**FIG. 4B Cont'd**

2011 F 20 80282860

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SERIAL NO.: 09/828,708

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LIGHT CHAIN NUCLEOTIDE SEQUENCE OF ANTI-GPI ANTIBODIES

A4 - SEQ ID NO:112

CCAGACCTCCTGGCTGTCTCTGGCGAGAGGGCCACCATCAACTGCAA GTCCAGGTTTTTACACTTCCAAACAATAA  
GAACTACTTAACTCTGCTTACCAAGAAACCAGGCCAGCCCTCTAAAGTGGCTAAATTACTGGGATCATCCACCCGGGAATCCGGGTC  
CTGACCGATTICAGTGGAGCGGGTCTGGGACAGATTTCACTCTACCAACTACCAACTGAGCTGGCTGAAGATGTGGCAGTTATTAC  
TGTCAGCAAATTATGTTACTTGTACACTTITGGCAGGGACCAAGCTGGAGA1CAAAACGAACTGTGGCT

D2 - SEQ ID NO:113

CCATCCCTCTGCTGCACTGTGAGGAGACAGAGTCACCATCACTGCGGGCAGTCAGGCACTTACCTAGCTGAGGTTAGCAGCAGCTACTTAA  
CAGCTAAAAACCGGGAAAGCCCTTAAGCTCTCTGATCTGCTGATCCACTTGTGAACTTGCAGGGCCATCTAGTGGTCACTCCAGACAGGTTCACTG  
TGGATCTGGACAGAAATTCACTCTACAATAAGCAGCTGCACTGGCTGAAGATTTGCAACTTAACTGTCAACAGCTTAACTG  
ACCTCTACTTGTGGGAGGGCCAAGGTGGATCAAGGAACACTGTGGCT

D121 - SEQ ID NO:114

CCAGGCACCCCTGCTTGTCTCCAGGGAAAAGAGCCACCCCTCTGCAAGGGCAGTCAGGCTCTGCACTGTTAGCAGCAGCTACTTAGCCTG  
GTACCAAGCAGAAACCTGGCCAGGGTCCAGGCTCTCATCTATGGTCACTCTGCTGAACTTGCAGGCACTTGTGAAAGTGGTCACTCTG  
GCAGTGGGTCTGGACAACTCTCACCTCTCACCATCAGAGCTGGACGCTGAAGAATTGCAAGAACACTGTGGCT

B2 - SEQ ID NO:115

CCAGACCTCCTGGCTGTCTCTGGCGAGAGGGCCACCATCAACTGCAA GTCCAGGTTTTTACACTTCCAAACAATAA  
GAACTACTTAACTGTGGTACCAAGAGAAACCAAGGGCAGGCCTCTAAAGTGGCTAAATTACTGGGATCATCCACCCGGGAATCCGGGTC  
CTGACCGATTICAGTGGCAGCGGGTCTGGGACAGATTTCACTCTACCAACTGAGCTGGCTGAAGATGTGGCAGTTATTAC  
TGTCAGCAAATTATGTTACTTGTACACTTITGGCAGGGACCAAGCTGGAGATCAA ACGAACACTGTGGCT

FIG. 5A

TITLE: AUTOANTIBODIES TO GLUCOSE-6-PHOSPHATE ISOMERASE AND THEIR  
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D14 - SEQ ID NO:116

CCAGGCACCCCTGTCATTGGTCTCCAGGGGAAGGACCCCTCTCTGCAAGGCCAGTCAGAGTTAGCAGCAGCTACCTAGCCTG  
GTATCGCAGAGAACCTGGCAGGCTCCAGGCTCTCTAATGGTGGATCCAGGCTCCAGGCTCTAATGGTGGATCCAGGCTCCAGGCTCTA  
GAAGTGGGATCTGGGACAGATTTCAGTTTACCACTAGCAGTCAGTGGCTGAAGATACTGGACATAATTACITGTCACAAATATGAT  
AATGTCCTGACACTTTGGCAAGGGACCAGGCTGGAGATCAACGAACATTGGCT

D5 - SEQ ID NO:117

CCAGGCACCCCTGTCATTGGTCTCCAGGGGAAGGACCCCTCTCTGCAAGGCCAGTCAGAGTTAGCAGCAGCTACCTAGCCTG  
GTACCAAGCAGAAACCTGGCAGGCTCCAGGCTCTCTAATGGTGGATCCAGGCTCCAGGCTCTAATGGTGGATCCAGGCTCCAGGCTCTA  
GCAGTGGGATCTGGGACAGACTTCAGCTCACCATCTCACCATAGCAGACTGGACCTGTAAGATTTGCACTGTTAATIACCTGTCAGTGGCT  
ACCTCACCCCTCTGGCAAGGGACAGACTGGAGATTAACGAACATTGGCT

A7 - SEQ ID NO:118

CCAGGCACCCCTGTCATTGGTCTCCAGGGGAAGGACCCCTCTCTGCAAGGCCAGTCAGAGTTAGCAGCAGCTACCTAGCCTG  
GTACCAAGCAGAAACCTGGCAGGCTCCAGGCTCTCTAATGGTGGATCCAGGCTCCAGGCTCTAATGGTGGATCCAGGCTCCAGGCTCTA  
GCAGTGGGATCTGGGACAGACTTCAGCTCACCATCTCACCATAGCAGACTGGACCTGTAAGATTTGCACTGTTAATIACCTGTCAGTGGCT  
AGCTCACCTCGGAAGTTCGGCAAGGGACCAAGGTGGAAATCAAAACGAACCTGTCAGTGGAAATCAAAACGAACCTGTCAGTGGCT

**FIG. 5A Cont'd**

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2017-2018-2860

HEAVY CHAIN NUCLEOTIDE SEQUENCE OF ANTI-GPI ANTIBODIES

A4-H - SEQ ID NO:116

GAGGGCTGGTCCAGCTGGGAGGTCCCTGAAACCTCCCTGTCAGGCCCTGGATTCACATGGACTGGTC  
CGCCAAGCTCCAGGCAGGGCTGAGTGGGGCAGCTTGGCTCTGATGGAAGTAATAAATTCTATAAGAACGGC  
GCCATCACCATCTCAAGGACAATCTCAAGAACACACTGTATCTGCAAATGAAAGCCTGAGAAITGACAGGGCTCTAT  
TACTGTGCAATTCCCTGGGAACACTACCGCTTTAACCTGGCCAGGGAAACCTGGTGTGTCACCGCTCTCA

D2-H - SEQ ID NO:117

GGCTGTCCAAGCAAGTAGGAGGCTCTAAAGACTCTCTGTAGCCCTGGATTCACCTTCAGTAGTCATACATGCACTGGGTC  
CCAGGGCTCCAGGCAGGGGCTGGTGGCTGGACTTGTGAAAGTAATAAATTCTATGATGGAAGTATAAGAACAGCTGG  
CGATTACCAATCTCCAGAGACAATTCAGAACACAGCTGTATCTGCAATTGAGCAGCTTAAGAACCTGGCTCTGATGAA  
TGTACGAAATTCCGAGGTGGAGCTACCGCTTTGACTCTGGCCAGGGAAACCTGGTGTGACCGTCTCTCAG

D121-H - SEQ ID NO:118

GGGGAGGCGTGGTCCAGGCCCTGGGAGGCTCTGAGACTTTCCTGGAGCCCTCTGGATTCACCTTCAGTCTTACATCTTC  
GTCGGCAGGCTCCAGGCAGGGGCTGGTGGCTGGACTTGTGAAAGTAATAAATTCTATGATGGAAGTATAAGAACAGCTGG  
AGGGCGGATCACCATTCCAGAGACAATTCCAAGAACACTCTATCTGCAAATGAAACACTCTATCTGCAATTGAGTGA  
TATTACTGTGCAATTCCATAGTGGAAACTACCGCTTTAACCTGGGCTGGGAACCTGGTGTGACCGTCTCTC

FIG. 5B

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B2-H - SEQ ID NO:119

GGGGCAGGGTGAAGGAAGCCGGACCTCCGTAGGGATCCTGAGGGCATCTGGAAACACCTTCACCTGCCACCATATTCACTG  
GGTCCGCAGGCCCCCTGGACAAGGCCCTCAAGTGATGGAAAGAATCAACCCGACTGGGGGGTTAGCTCGCACAGAGITC  
CAGGACAGAGTCAGCCCTGACCGGGACAGGTCTCAATACAGTCCTCTGGAACCTGCTACGGGAGGGACACGGCCT  
TATATCTGTGCGAGGGCCGATTAACATGATCGGGAAACCTCTGACCTGACGGGACAGTGTACCCGTCACCGTCTCCCA

D14-H - SEQ ID NO:120

GGGGGAGGCTTGGTACAGCCTGGGGGGTCCCTGAGACTCTCCCTGAGACTCTCCCTGCAACCTCTGGATTACCTTAAACAGCTATGCTGAACTG  
GGTCCGCAGGCTCACCCATCTGGGGGGTCCCTGAGGTGAGTGGCTACGTTAATGGAAATGGAATAGTGGAAATGAACTGAGCAGACTCCCTG  
AAGGGCCGGTTCACCAATCTCCAGAGAACAACTCCAAAGAACAACTCCAGAGGCTTCTGAGGAACTGAGCAGAGCCGAAGACGGCCG  
TTTATTAATGTCGAAAGATCTGTGCACTGGTGCATACTACTACGGGATGGACGCTGGGGCAAGGGACCCACGGTACCGTC  
TCCTCA

D5-H - SEQ ID NO:121

GGCCCAGGATTGGTGAAGGCCATCACAGACCCCTACCCCTCACCTGCACTGTCCTCCAGGTCTCATTAAAGGTGATACTTACCTCTCTGG  
AGCTGGGTCGTCAGGCCGTAGGGACTGGGAGGGACTGGGAGGTAACTTACGGCAGAGGGACIACCAATTIAACCCGTGTT  
TGGGGAGTCAGTCAGTTCAGTGGACATGTCAGTTCAGGAGTCAGTTCTGGAAATTGAGAGAATGTAATGGGCAAGGGAAATAGTGGTCAACGTCCTCTCA  
GTCTATTACTGTGCGAGAACAGAACAGGGTCCGAATACTCTTACCTTACCCCTGGGTCGAATACTCTTACCTTACCCCTGGGCAAGGGAAATAGTGGTCAACGTCCTCTCA

## FIG. 5B Cont'd

TITLE: AUTOANTIBODIES TO GLUCOSE-6-PHOSPHATE ISOMERASE AND THEIR  
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A7-H - SEQ ID NO:122

GGGTGAGGTGAAGAACGCCTGGTCCCTCGTTGAAGGTCTCTGCAGGGCACATTGGAGGATATGCTA  
TCAGCTGGTGCACAGGGCCCTGGACAAGGGCTTGAGTGGATGGGAGGGATCATGCCCTCCCTTGGTCCAGTAAC  
ACGCACAGAAAGTTCAAGGGCAAGTCAAGTCAAGTACCGCGGACGATTACCGCCACAGCTACATGGGTCTGAGCAGCC  
TGAGATCTGGGGACACGGCCGTATTACTGCGAGGTGGCTATGATGGTAGTGGCTATACAAACAATATCCCCAA  
AGATCTACTACTACATGACGTCAGTGGCAAAAGGGACCAACGGTCACCGTGTCTCAGC

**FIG. 5B Cont'd**

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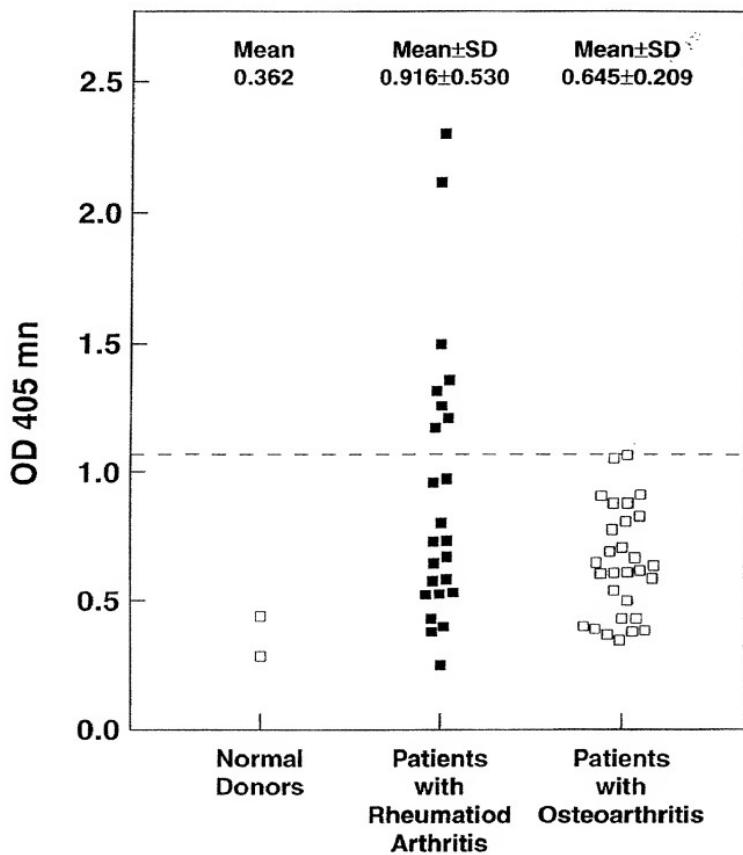


FIG. 6

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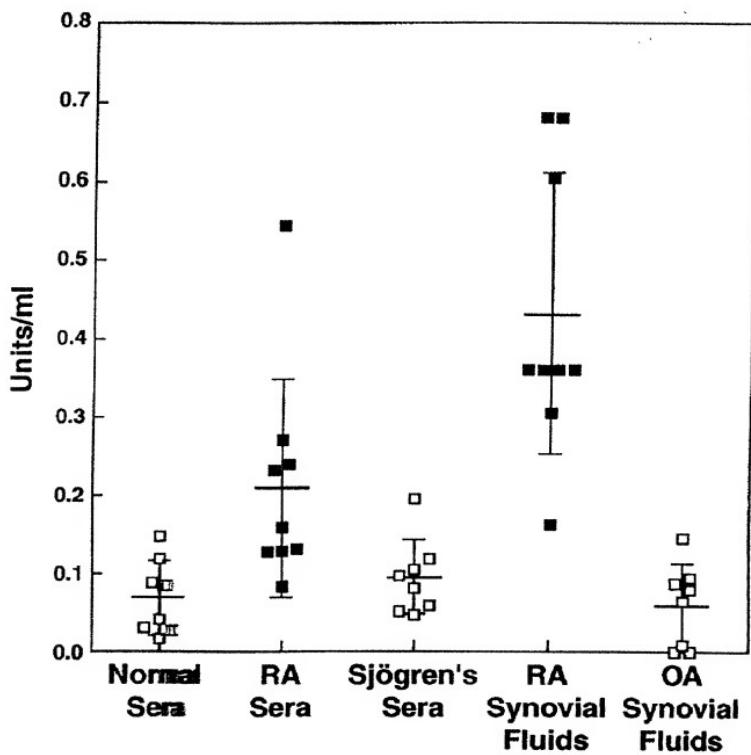


FIG. 7

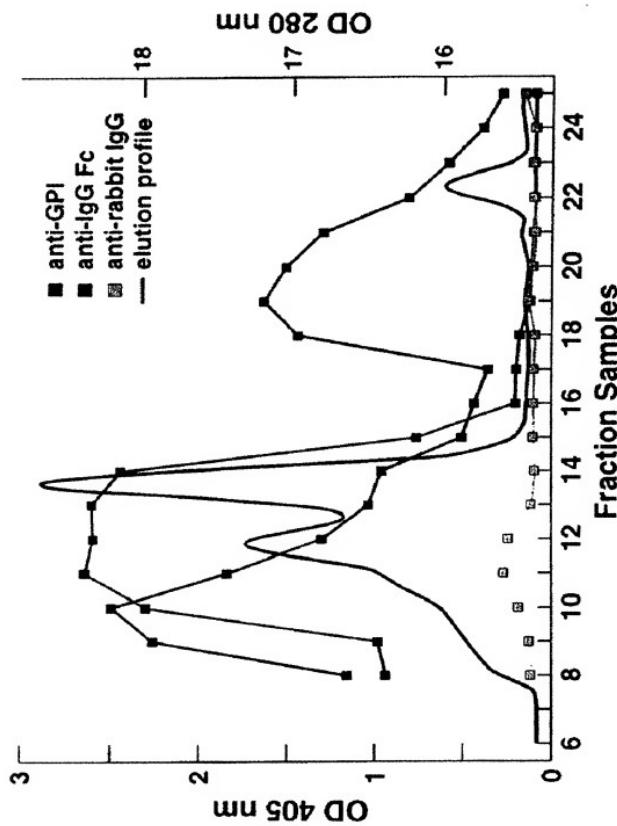


FIG. 8A

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FIG. 8B



FIG. 8C

09828708-021402

TITLE: AUTOANTIBODIES TO GLUCOSE-6-PHOSPHATE ISOMERASE AND THEIR  
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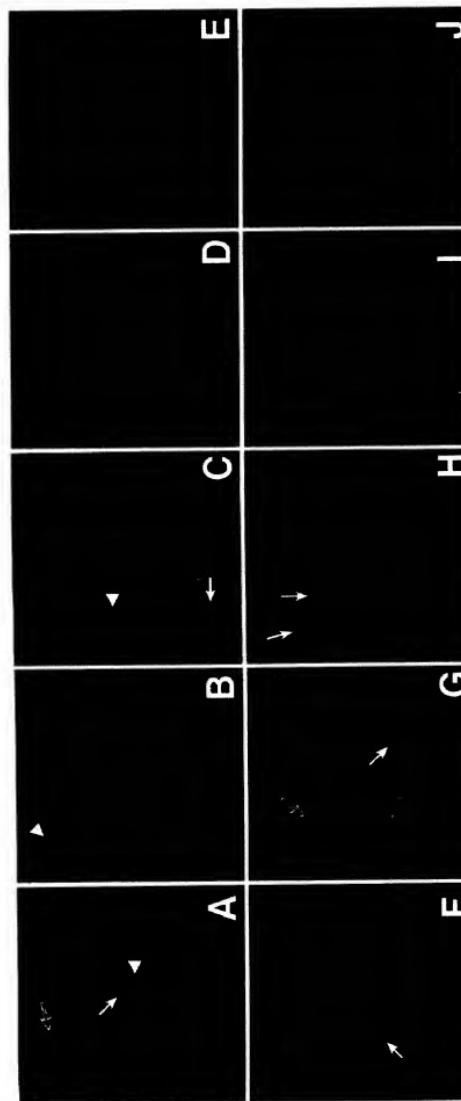


FIG. 9